

COMPASS SWING

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Compass Swing

F-1 ADJUSTMENTS

KA 51/51 A

With the complete KCS 55/55A system operating and the KA 51/51A in the "free gyro" mode; position the aircraft on a compass rose and adjust the compensator as follows:

- A. Place the aircraft on a North heading and rotate the compass card to NORTH with the manual slave buttons. Place a non-magnetic blade screwdriver in the N/S opening on the KA 51/51 A and center the slave m325703eter.
- B. Place the aircraft on an East heading and rotate the compass card to EAST with the manual slave buttons. Place a non-magnetic blade screwdriver in the E/W opening on the KA 51/51 A and center the slave meter.
- C. Place the aircraft on a South heading and rotate the compass card to SOUTH with the manual slave buttons. Place a non-magnetic blade screwdriver in the N/S opening on the KA 51/51 A and adjust the meter for one-half of the existing meter deviation.
- D. Place the aircraft on a West heading and rotate the compass card to WEST with the manual slave buttons. Place a non-magnetic blade screwdriver in the E/W opening on the KA 51/51A and adjust the meter for one-half of the existing meter deviation.

To achieve maximum accuracy of the system the index-error of the KMT 112 should be re-adjusted per paragraph above. All reading should be within 2 degrees of those on the compass rose.

With the complete KCS 55A Compass System operating and the KA 51 B in the "Free Gyro" mode, position the aircraft on a compass rose. Remove the two mounting screws that secure the unit to the panel and slide the unit out until the meter test jacks and compensator potentiometers are accessible. If the compensator assembly is remote mounted, gain access to the compensatorpotentiometers. Connect a digital millivolt meter to the unit test jacks (common

connection of the millivolt meter to the black test jack of the KA 51 B and positive connection of the millivolt meter to the red test jack of the KA 51 B). Adjust the compensation as follows:

- A. Place the aircraft on a North heading and center the compass card North under the Lubber line with the CW/CCW switch. Place a non-magnetic blade screwdriver in the N/S potentiometer in the KA 51 B Compensator Assembly and zero the external millivolt meter (O.OVDC \pm 50mV).
- B. Place the aircraft on an East heading and center the compass card East under the Lubber line with the CW/CCW switch. Place a non-magnetic blade screwdriver in the E/W potentiometer in the KA 51 B Compensator Assembly and zero the external millivolt meter (O.OVDC \pm 50mV).
- C. Place the aircraft on a South heading and center the compass card South under the Lubber line with the CW/CCW switch. Place a non-magnetic blade screwdriver in the N/S potentiometer in the KA 51 B Compensator Assembly and adjust the external millivolt meter for 1/2 of the existing millivolt meter readout.
- D. Place the aircraft on a West heading and center the compass card West under the Lubber line with the CW/CCW switch. Place a non-magnetic blade screwdriver in the E/W potentiometer in the KA 51 B Compensator Assembly and adjust the external millivolt meter for 1/2 of the existing millivolt meter readout.

As a final check of the KCS 55A Compass System, position the aircraft on the compass rose and turn to each of the four cardinal headings while the KCS 55A System is in the Slaved Gyro mode. All readings should be within $\pm 2^\circ$ of those on the compass rose. The KA 51 B can now be re-secured to the aircraft panel. The alignment is complete.